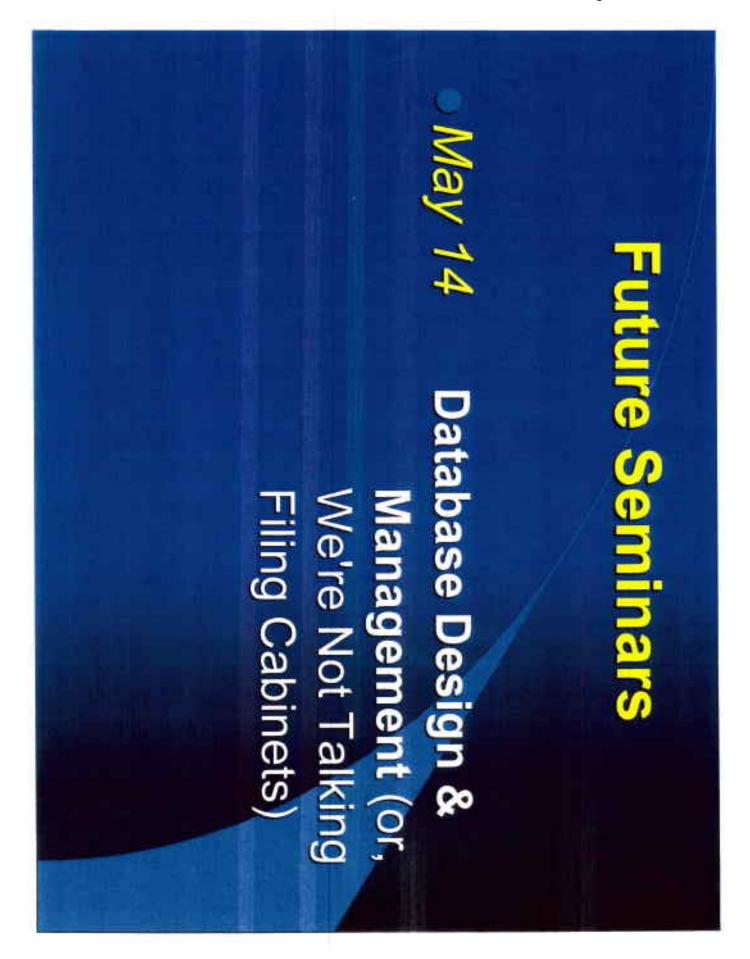
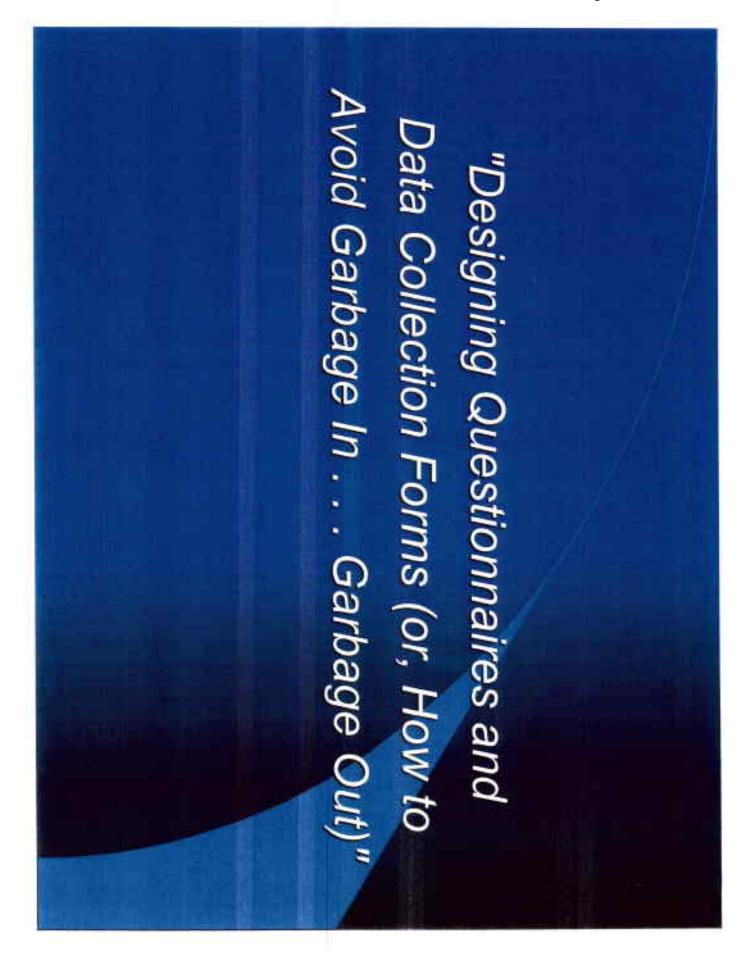
UAB Department of Ophthalmology Clinical Research Unit

2003 Seminar Series

"Designing Questionnaires and Data Collection Forms (or, How to Avoid Garbage In . . . Garbage Out)"





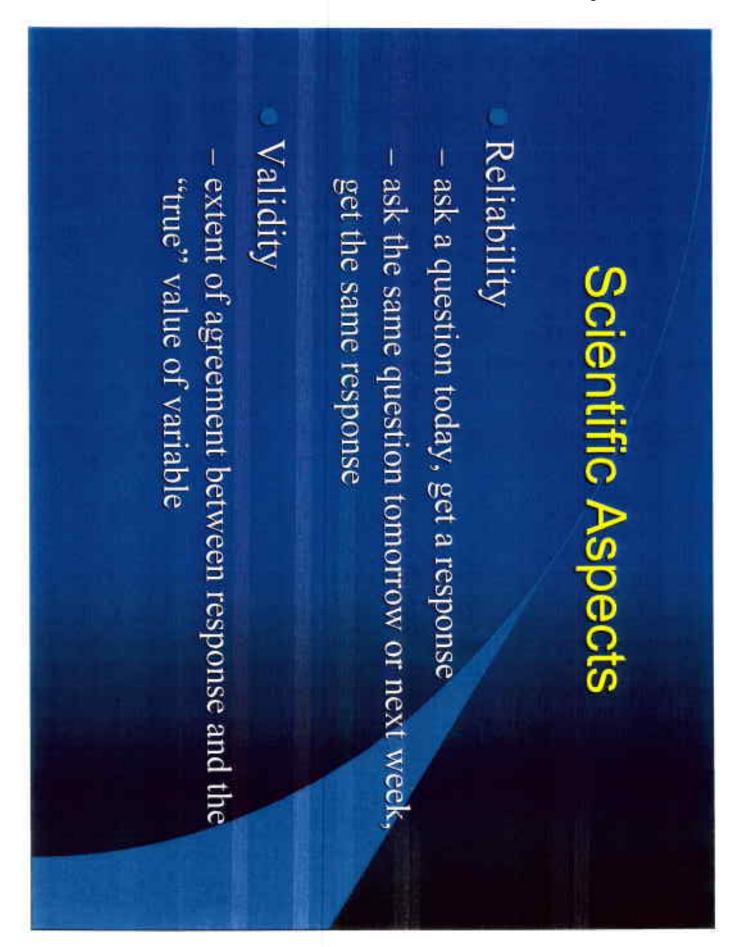


What is a Questionnaire?

A questionnaire is any written document Questionnaires are sometimes called listener(s) to answer one or more questions. used to instruct one or more reader(s) or

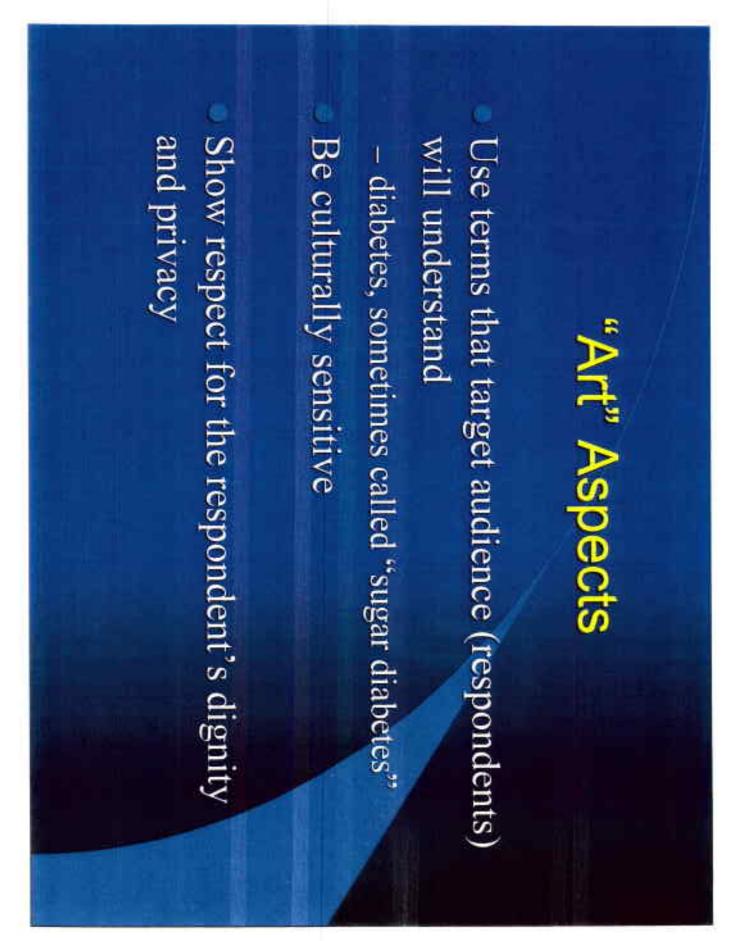
"instruments" or "survey instruments."

- Questions may be called "items."
- Individuals who answer the questions may be called "respondents" or "interviewees."



Scientific Aspects

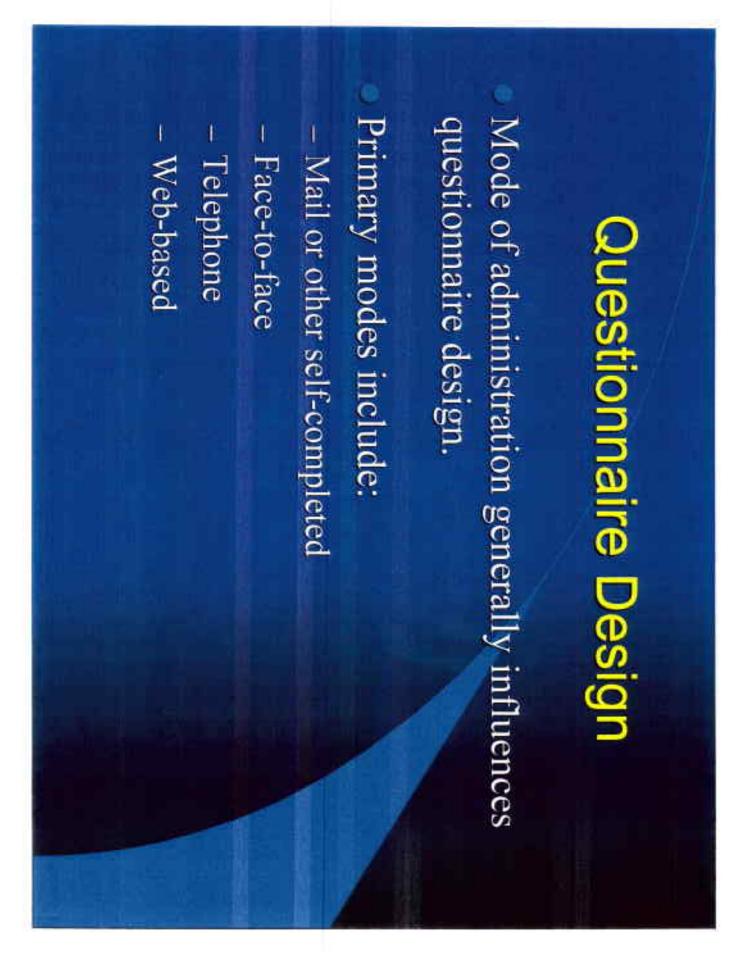
- Principles of questionnaire construction:
- Should be designed to meet specific purpose (e.g., hypotheses (research) managerial, administrative) or test specific study
- Q'naire should not exceed optimal length
- Questions should exhibit brevity and clarity
- Response options should be exhaustive and mutually exclusive
- Need rationale for inclusion of each question



Questionnaire Design - First Step

Before beginning to construct a questionnaire,

- Is a questionnaire the best method of data collection for your study/project?
- Have you considered alternatives (e.g., medical record review, lab tests, health professional's assessments.
- What are the major areas that need to be covered and what method will be used?

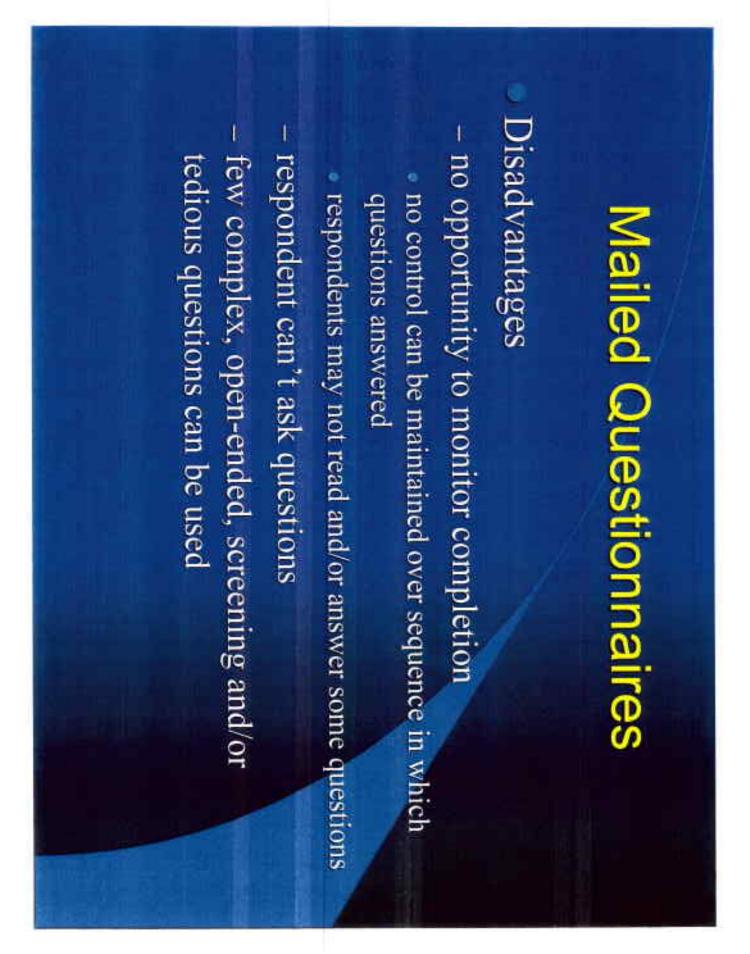


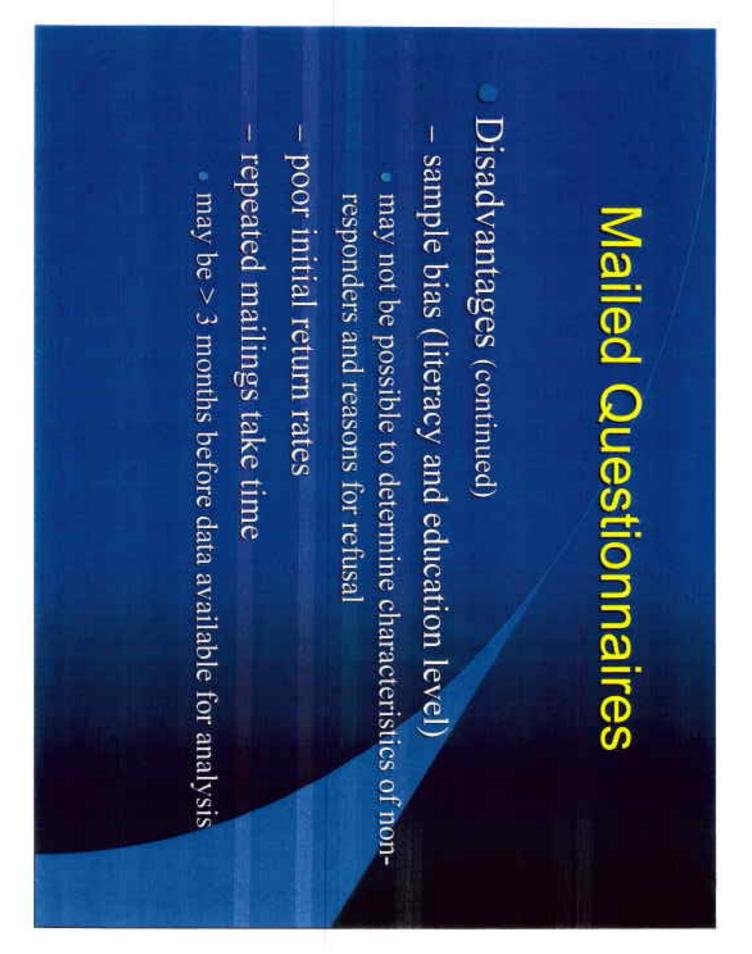
Mailed Questionnaires

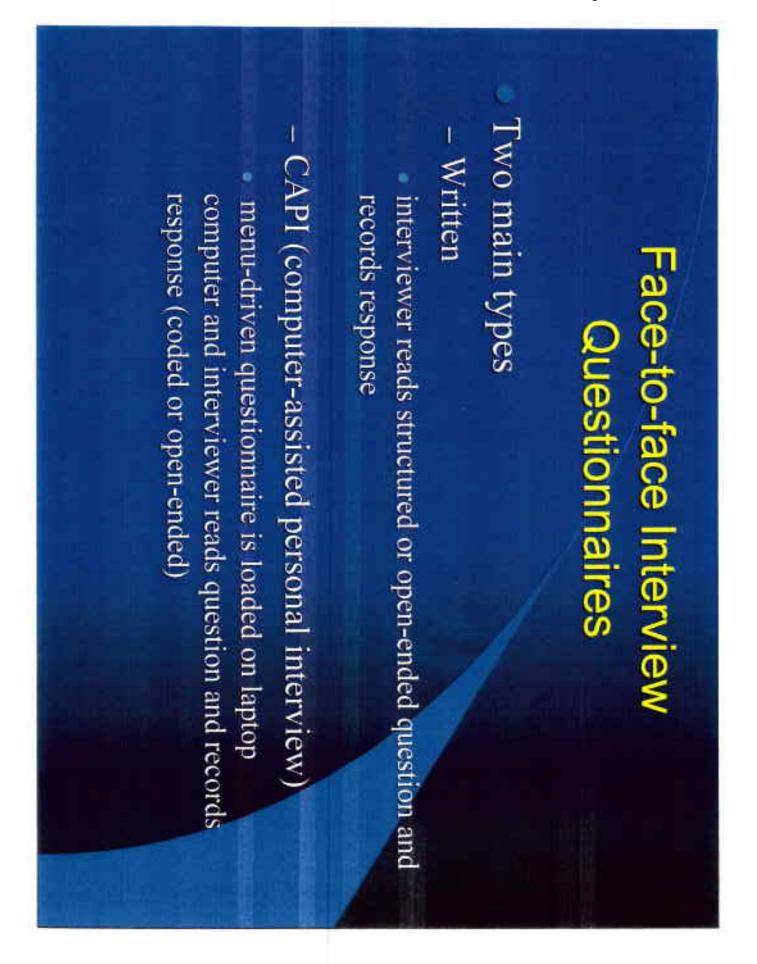
Advantages

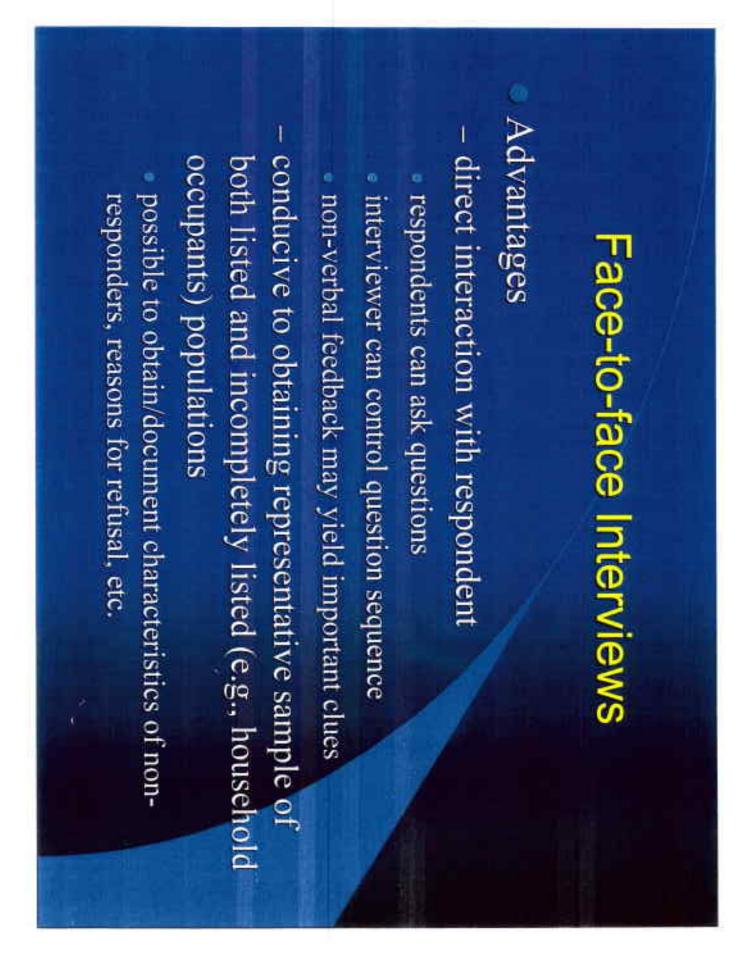
low cost

- locating respondents may be easier administrative requirements in terms of personnel, costs respondent are marginal per respondent and costs per geographically dispersed
- especially if surveying homogeneous, specialized populations
- social desirability bias, interviewer distortion minimized

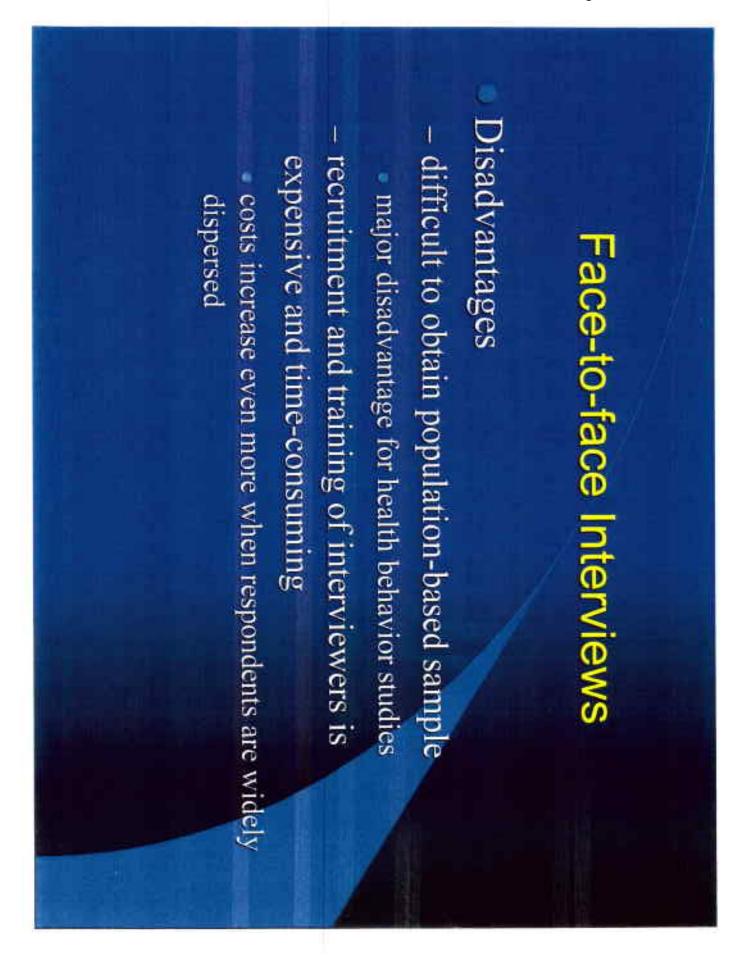


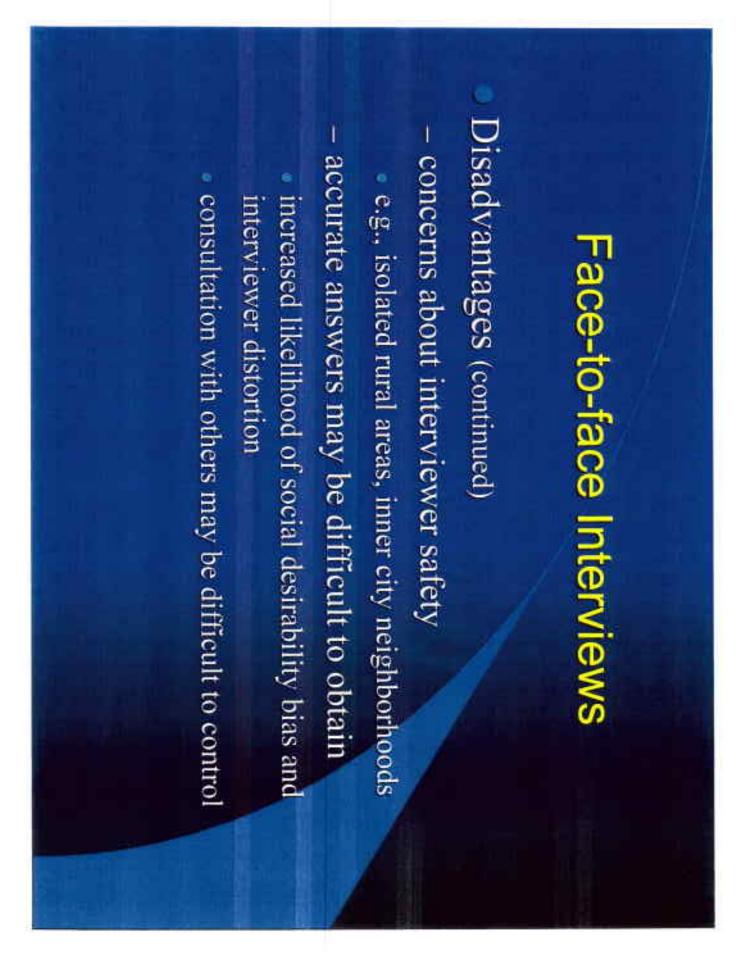


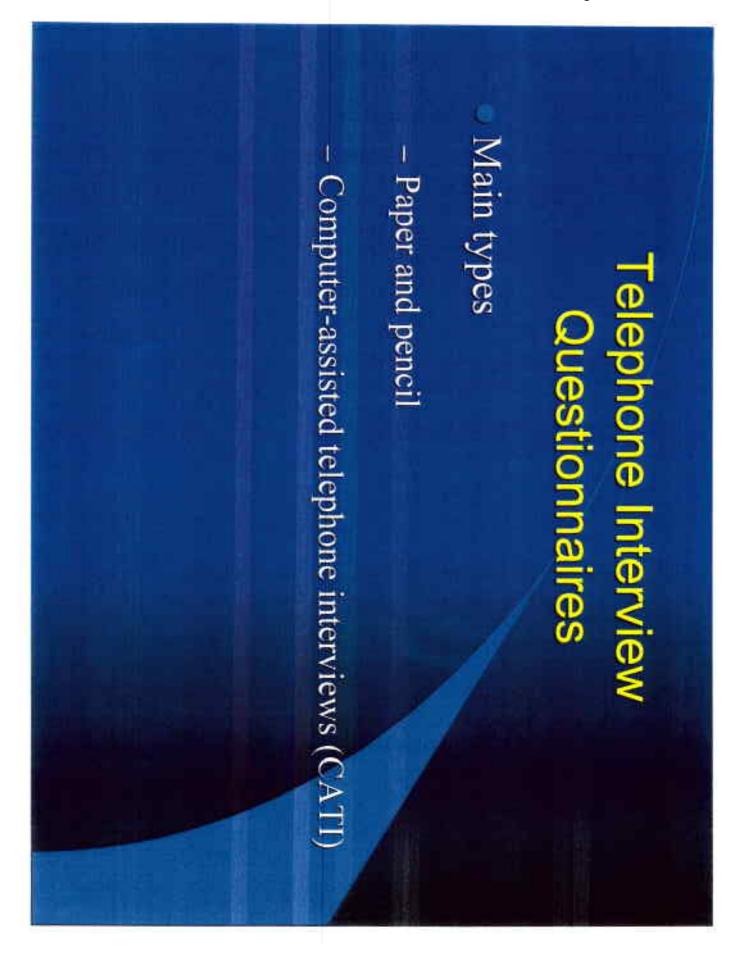




Advantages (continued) high response rates can be obtained with allows flexibility in questionnaire length and directors, cancer patients, students, etc.) question style homogeneous, specialized samples (e.g., agency heterogeneous samples (e.g., general public) and can probe for more in-depth responses reduce item non-response Face-to-face Interviews

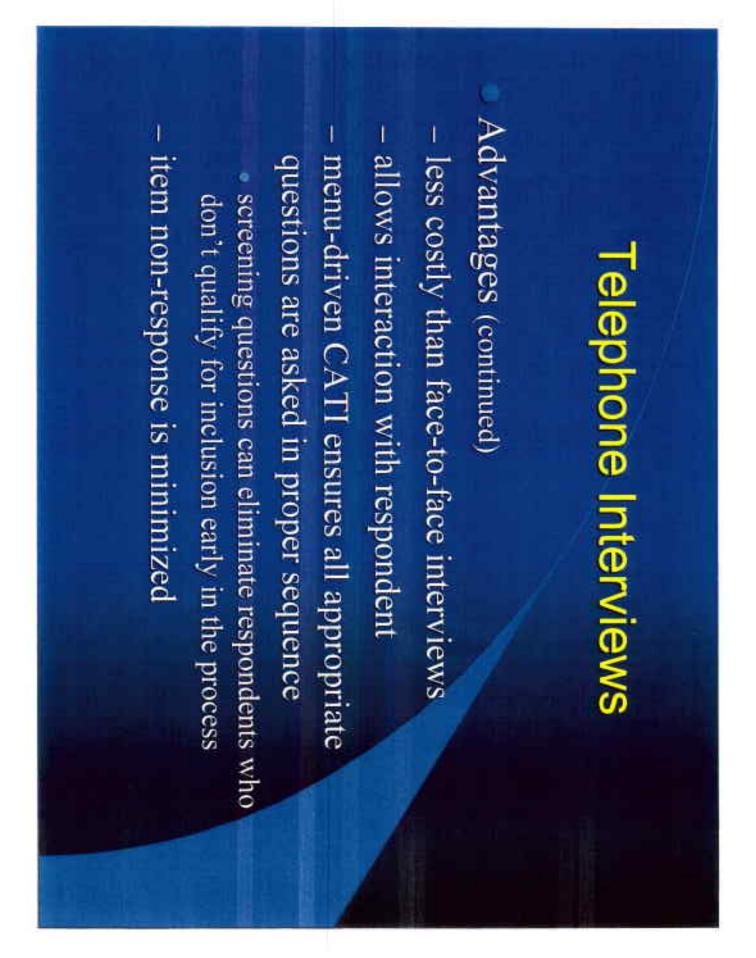




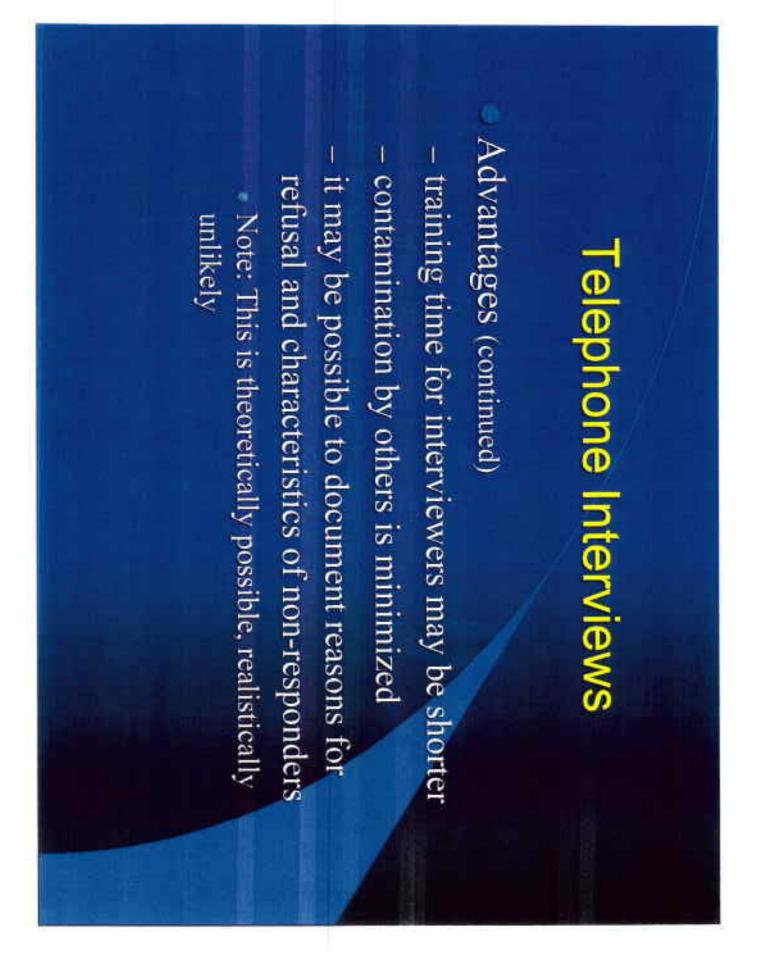


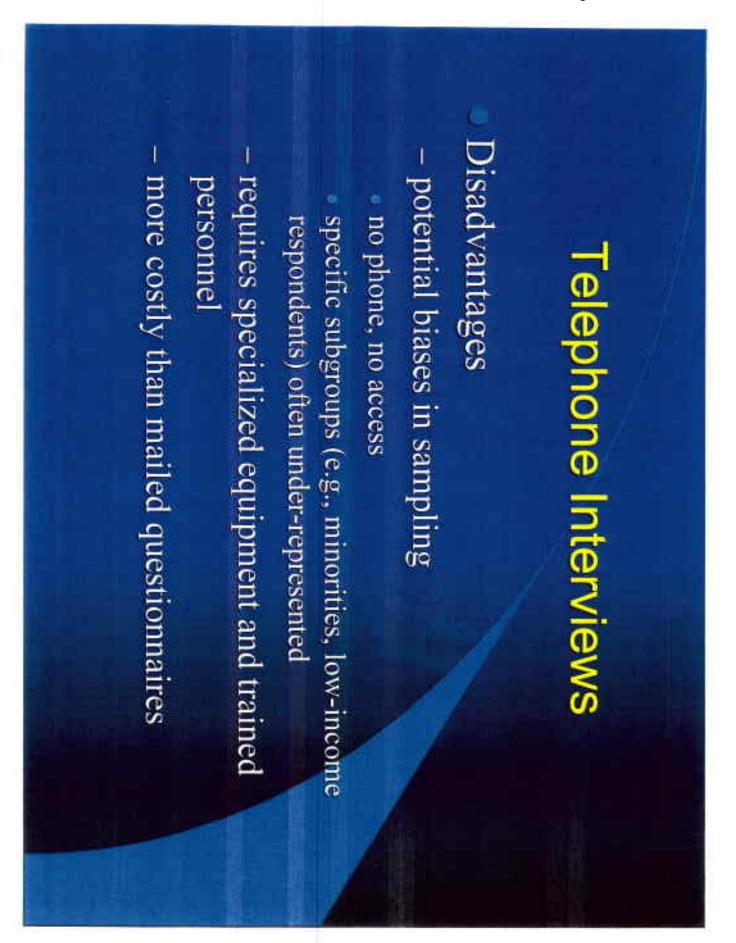
Telephone Interviews

- Advantages
- quickest method, if collection time is important
- generally best means (and sometimes only means) of obtaining population-based data
- percentage of households with telephones is high in most parts of the country
- random-digit-dialing (RDD) can reach listed and unlisted households
- selection of respondents within sampling units can be controlled (e.g., oldest male, youngest female, etc.)

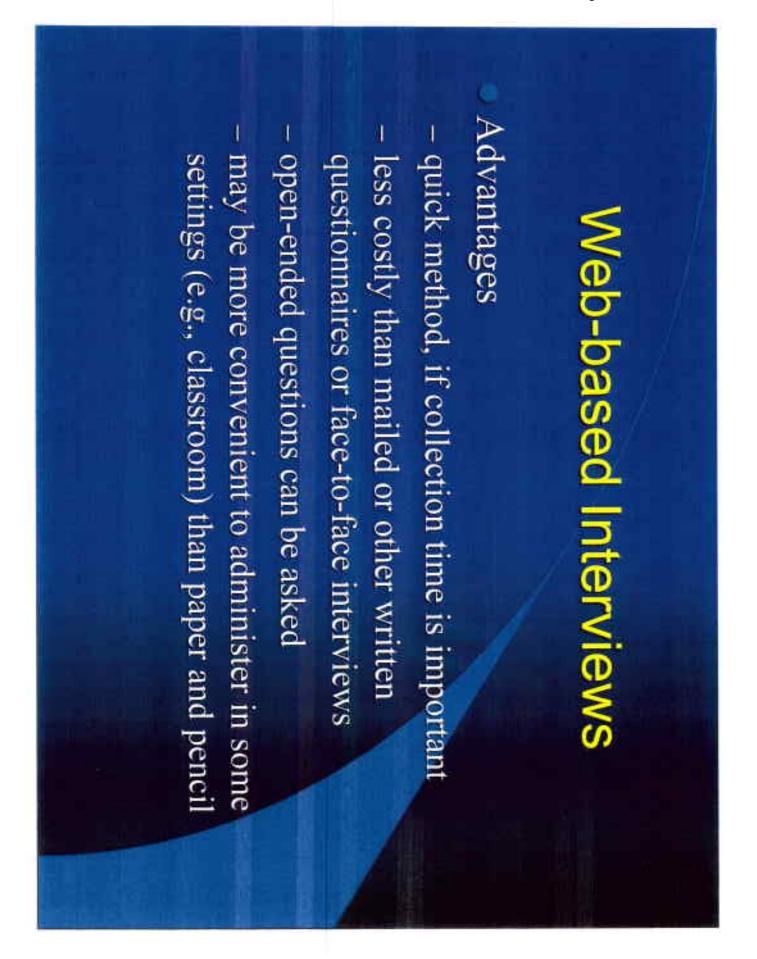


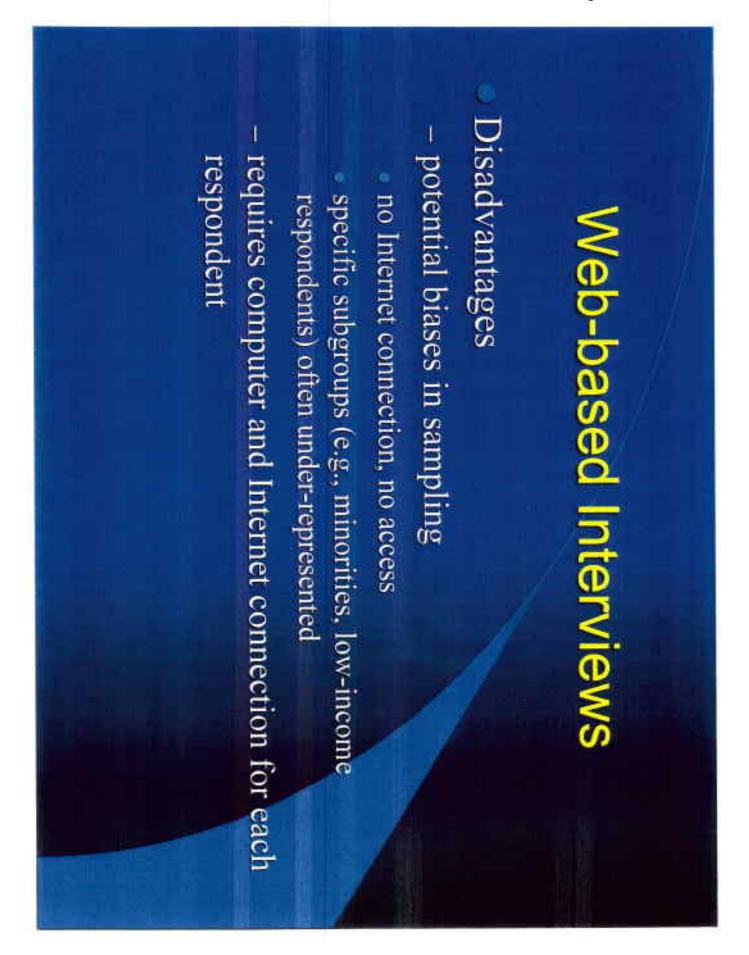
Advantages (continued) open-ended questions can be asked high response rates can be obtained with both telephone interviewers may be easier to select heterogeneous and homogeneous samples monitoring of interviewer performance is easier call-backs live monitoring e.g., less concern about personal appearance Telephone Interviews





Disadvantages (continued) may be difficult to confirm that selected need to avoid complex questions one household member may serve as "gatekeeper" may be difficult to control consultation with other answer your questions) and prevent access to selected respondent (e.g., respondent is the interviewee "why do you want to talk with my husband; I'll household members Telephone Interviews

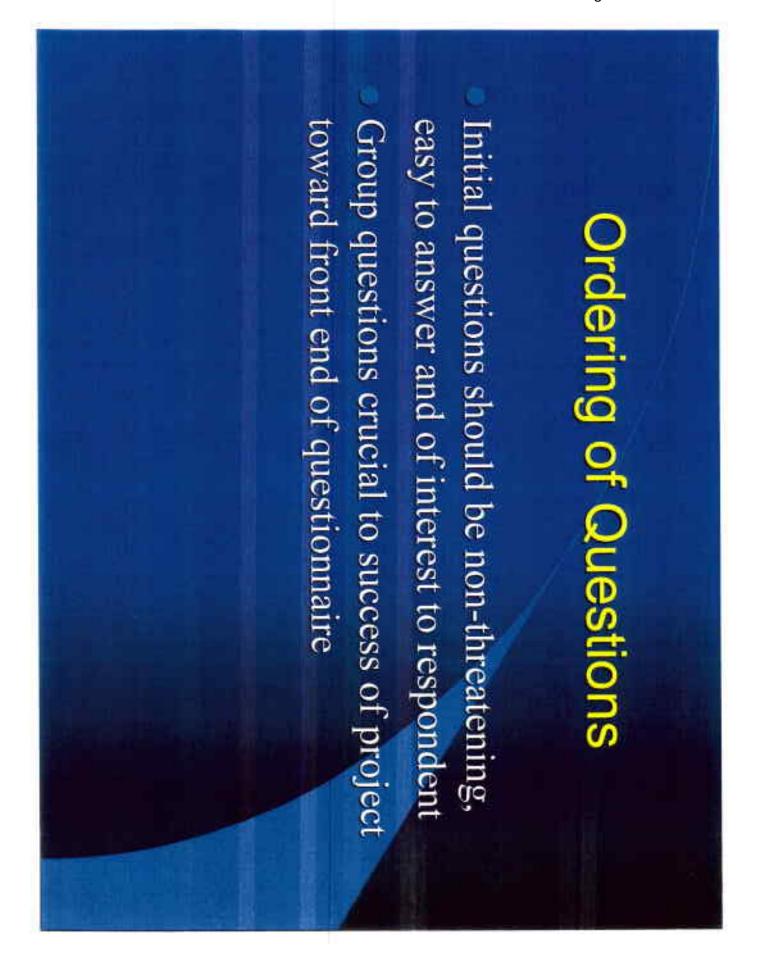




Set target dates for start and completion Is IRB approval needed? administration Define specific study hypotheses (if researchequipment, personnel, etc.) Know the purpose Determine sample size and method of oriented) Identify resources available (budget, First Steps in Questionnaire Design

Overall Questionnaire Design

- Preliminary Statements
- Introduction: identify interviewer, institution and purpose of the study or research project (NEVER SAY 'SURVEY')
- Ascertain correct phone # (if telephone interview)
- Identify and select respondent
- Assure confidentiality of information obtained if needed, obtain written informed consent
- "Interview will take only a short time"



Ordering of Questions

Sequence questions, with generic questions smoke cigarettes every day, some days, or not at all?") life?") before specific questions (e.g., "Do you now (e.g., "Have you smoked at least 100 cigarettes in your entire

Group questions by topic

 respondents will answer 20 tobacco-use questions smoking questions smoking, go on to another topic, then ask 10 more but will often complain if you ask 10 questions on

